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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/720,998	05/21/2001	Markku Asumalahti	5848.161USW1	8394

23552 7590 08/27/2002  
MERCHANT & GOULD PC  
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MINNEAPOLIS, MN 55402-0903

EXAMINER
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HARLAN, ROBERT D

ART UNIT	PAPER NUMBER
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1713

DATE MAILED: 08/27/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

87V

Office Action Summary

Application No.	Applicant(s)	
09/720,998	ASUMALAHTI ET AL.	
Examiner	Art Unit	
Robert D. Harlan	1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                          | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____.  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                 | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) 7. | 6) <input type="checkbox"/> Other: .  |

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**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The term "type" is indefinite because the term extends or narrows the claimed limitation. See MPEP 2163. It is suggested that Examiner delete the term "type."

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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~~A person shall be entitled to a patent unless -~~

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in-

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~~(1) an application for patent, published under section 122(b), by another~~  
filed in the United States before the invention by the applicant for

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patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or  
(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-15 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Ahvenainen et al., U.S. Patent No. 5,326,835 (hereinafter "Ahvenainen").

6. Claims 1-15 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Barry et al., U.S. Patent No. 6,403,181 (hereinafter "Barry").

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7. Ahvenainen teaches a multi-stage process for producing polyethylene having a bimodal and/or broad molecular weight distribution in the presence of an ethylene polymerizing catalyst system in a multi-step reaction sequence. See Ahvenainen, Abstract; col. 1, lines 6-9. Ahvenainen further teaches a multi-stage process in which a slurry-gas phase process is used and the stages involved loop reactors followed by gas reactors. See Ahvenainen, col. 1, lines 62-65; col. 2, line 61 through col. 3, line 7. Ahvenainen further teaches the use of Ziegler-Natta catalyst in the polymerization process. See Ahvenainen, col. 3, lines 25-34. Ahvenainen further teaches the use of alpha olefin comonomers. See Ahvenainen, col. 4, lines 62-66. Ahvenainen further teaches an end product that has a density, melt flow and dispersity within the ranges of the claims compositions and pipes. See Ahvenainen, Example 6. Ahvenainen also teaches the use of polyethylene in the production of pipes. See Ahvenainen, Examples. Although Ahvenainen does not disclose all the characteristics and properties of the compositions and pipes disclosed in the present claims, based on the substantially identical process and the properties disclosed by Ahvenainen, the Examiner has a reasonable basis to believe that the properties claimed in the

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present invention is inherent in the compositions and pipes disclosed by Ahvenainen. Because the PTO has no means to conduct analytical experiments, the burden of proof is shifted to the Applicants to prove that the properties are not inherent. See In re Fitzgerald, 619 F.2d 67, 205 USPQ 594 (CCPA 1980); In re Best, 195 USPQ 430 (CCPA 1977); In re Napier, 55 F.3d 610, 613, 34 USPQ2d 1782, 1784 (Fed. Cir. 1995).

8. Barry teaches high performance conduits, the polyethylene resin used to make them and the resins exhibits a bimodal molecular weight distribution or broad molecular weight distribution and is of high molecular weight. See Barry, Abstract; col. 1, lines 19-53. Barry further teaches polyethylene resins with properties (density, comonomer selection, melt flow, etc.) that are within the ranges of present claims. Although Barry does not disclose all the characteristics and properties of the compositions and pipes disclosed in the present claims, based on the substantially identical process and the properties disclosed by Barry, the

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Examiner has a reasonable basis to believe that the properties claimed in the present invention is inherent in the compositions and pipes disclosed by Barry. Because the PTO has no means to

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conduct analytical experiments, the burden of proof is shifted to the Applicants to prove that the properties are not inherent. See In re Fitzgerald, 619 F.2d 67, 205 USPQ 594 (CCPA 1980); In re Best, 195 USPQ 430 (CCPA 1977); In re Napier, 55 F.3d 610, 613, 34 USPQ2d 1782, 1784 (Fed. Cir. 1995).

9. The claiming of a new use, new function or unknown property which is inherently present in the prior art does not necessarily make the claim patentable. In re Best, 562 F.2d 1252, 1254, 195 USPQ 430, 433 (CCPA 1977). However, the fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. See In re Rijckaert, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993) (reversed rejection because inherency was based on what would result due to optimization of conditions, not what was necessary due to optimization of conditions, not what was necessarily present in the prior art). "To establish inherency, the extrinsic evidence must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The

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mere fact that a certain thing may result from a given set of circumstances is not sufficient.'" See In re Robertson, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51. "In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." Ex parte Levy, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990).

10. The Examiner reasons that if a polymer composition is prepared by a known process, then the polymer composition itself and its properties are known as well. The Examiner finds nothing in the disclosure of Ahvenainen or Barry that would suggest that the properties of the ethylene polymer resins are different from the properties of the claimed compositions and pipes.

11. Even if the disclosure of Ahvenainen or Barry does not satisfy the requirements of 35 USC 102(b or e), it still would have been obvious to one of ordinary skill in the art to arrive at the claimed ethylene polymers and pipes, because it appears

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that the claimed ethylene polymers and pipes are within the generic disclosure of Ahvenainen or Barry and a person of ordinary skill in the art would have expected all embodiment of Ahvenainen or Barry to have similar properties. Furthermore, ethylene homopolymers have many uses, including as molded articles, that are known to persons of ordinary skill in the art. Applicant has not demonstrated that the differences, if any, between the claimed ethylene polymers and pipes disclosed by Ahvenainen or Barry give rise to unexpected results. The evidence presented to rebut the prima facie case of obviousness must be commensurate in scope with the claims to which it pertains. See In re Dill and Scales, 202 USPQ 805 (CCPA 1979).

### **Conclusion**

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert D. Harlan whose telephone number is (703) 306-5926. The examiner can normally be reached on Mon-Fri, 10 AM - 8 PM.

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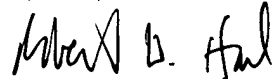
13. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David W. Wu can be reached on (703) 308-2450. The fax phone numbers for the

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organization where this application or proceeding is assigned are (703) 872-9559 for regular communications and (703) 872-9559 for After Final communications.

14. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1495.



Robert D. Harlan  
Examiner  
Art Unit 1713

rdh  
August 22, 2002